



A.D. 1855 N° 605.

S P E C I F I C A T I O N

OF

BENJAMIN COOK.

FURNACES, &c.

LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,

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25, SOUTHAMPTON BUILDINGS, HOLBORN.

Price 3d.

1855.



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Furnaces, &c.

(This Invention received Provisional Protection, but notice to proceed with the application for Letters Patent was not given within the time prescribed by the Act.)

PROVISIONAL SPECIFICATION left by Benjamin Cook at the Office of the Commissioners of Patents, with his Petition, on the 19th March 1855.

I, BENJAMIN COOK, of Chester Street, Kennington, in the County of Surrey,
5 Furnace Builder, do hereby declare the nature of the said Invention for
“**IMPROVEMENTS IN MACHINERY OR APPARATUS FOR CONSUMING SMOKE**” to be as
follows :—

Instead of the various modes of consuming or preventing the escape of
smoke from chimneys, &c. hitherto employed, I propose to affix to the front
10 or opening of the furnace a framing having two or even more doors. One of
these doors, the lowermost, will be the usual door opening for the purpose
of feeding the furnace; and the other, or uppermost door, will be for the
admission or production of highly rarified and subdivided air. I also propose
placing at the feeding portion of the furnace opening, and (as it were) under
15 the floor thereof, a dead plate (which plate will be cast or made hollow);
from this plate, or the floor of the feeding part of the furnace, the furnace bars
will rise in an incline upwards to the middle of the furnace bridge; the
furnace bars may be made hollow or solid. I expect to obtain air at the con-
nection of the bars and the bridge, which air will proceed from the hollow
20 of the dead plate through the ash-pit between or through the furnace bars.

Cook's Improvements in Machinery or Apparatus for Consuming Smoke.

The furnace doors I propose to divide (the upper from the lower) by an horizontal dead plate, which shall shut off the communication between the lower or feeding and the upper portion of the front part of the furnace. I propose dividing the upper part between the dead plate and the roof of the furnace (or the boiler, as the case may be,) into chambers or departments; 5 these chambers will be perforated at their sides, as also will the dead plate, just mentioned, and thus I propose obtaining subdivided and highly rarified air from above, and so prevent smoke issuing from chimneys, stalks, or other outlets, except at the first lighting the fires.

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Printers to the Queen's most Excellent Majesty. 1855.